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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,502	09/26/2003	Takayuki Ito	26A-010	8625

23400 7590 06/15/2005

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SUITE 101
RESTON, VA 20191

EXAMINER

FONTAINE, MONICA A

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,502

Applicant(s)

ITO ET AL.

Examiner

Monica A. Fontaine

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9 and 11-19 is/are rejected.
- 7) ☒ Claim(s) 3,10 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>092603</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 7 and 9 are objected to because of the following informalities: It is believed that the occurrences of "releasing agent" in each of the noted claims is an error, since the releasing agent is not what is discharged or collected from the cavity. For purposes of examination, it will be interpreted that applicant has meant to claim collecting the solvent in the noted claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, and 15-18 rejected under 35 U.S.C. 102(b) as being anticipated by Sidles et al. (U.S. Patent 4,351,789). Regarding Claim 1, Sidles et al., hereafter "Sidles," show that it is known to carry out a method for manufacturing a molded product having a molded portion (Abstract), the method comprising forming a releasing agent layer on a wall surface of a cavity of a mold by injecting a first liquid containing a releasing agent into the cavity and depressurizing the cavity (Column 2, lines 3-6, 20-29; Column 5, lines 58-63; Column 6, lines 10-16); and forming the molded portion by supplying a molding material into the cavity after the releasing agent layer is formed (Column 6, lines 50-59).

Regarding Claim 2, Sidles shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the depressurization of the cavity is performed after the injection of the releasing agent ends (Column 6, lines 10-33).

Regarding Claim 4, Sidles shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the injection of a first liquid and the depressurization of the cavity are performed when the mold is closed (Column 6, lines 10-33).

Regarding Claim 5, Sidles shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the first liquid includes the releasing agent and a solvent, and the cavity is depressurized to a pressure at which the solvent boils (Column 6, lines 29-35).

Regarding Claim 15, Sidles shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the injection of the first liquid includes injecting a previously measured amount of the first liquid into the cavity (Column 6, lines 10-14; It is noted that in order to inject the proper amount, previous measuring would take place prior to the injecting.).

Regarding Claim 16, Sidles shows that it is known to carry out a method for manufacturing a molded product using a mold having a cavity (Abstract), the method comprising the steps of forming a releasing agent layer on entire surface of the cavity when the mold is closed (Column 2, lines 3-6; Column 5, lines 58-63; Column 6, lines 10-16); and supplying the molding material to the cavity after the releasing agent layer is formed to form the molded product (Column 6, lines 50-59).

Regarding Claim 17, Sidles shows the process as claimed as discussed in the rejection of Claim 16 above, including a method wherein the step of forming a releasing agent layer includes the steps of closing the mold (Column 3, line 31); injecting a first liquid including a releasing agent and a solvent that vaporizes under a reduced pressure into the cavity (Column 3, lines 21-30, 51-58); and depressurizing the cavity to a pressure at which the solvent vaporizes (Column 5, lines 41-46).

Regarding Claim 18, Sidles shows the process as claimed as discussed in the rejection of Claims 16 and 17 above, including a method wherein the injection of the first liquid includes injecting a previously measured amount of the first liquid into the cavity (Column 6, lines 10-14; It is noted that in order to inject the proper amount, previous measuring would take place prior to the injecting.).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-9, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sidles, in view of Farber et al. (U.S. Patent 3,768,232).

Regarding Claim 6, Sidles shows the process as claimed as discussed in the rejection of Claims 1 and 5 above, but he does not show recovering the solvent. Farber et al., hereafter "Farber," show that it is known to recover the solvent vaporized in a process (Column 1, lines

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33-35) and reuse the recovered solvent as the solvent in a subsequent process (Column 3, lines 16-17). Farber and Sidles are combinable because they are concerned with a similar technical field, namely, processes which involve the vaporization of solvents. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Farber's recovery and reuse process during Sidles' molding process in order to reduce operating costs using recycling.

Regarding Claim 7, Sidles shows the process as claimed as discussed in the rejection of Claims 1, 5, and 6 above, but he does not show collecting the [solvent]. Farber shows that it is known to collect the [solvent] discharged from the cavity (Column 1, line 38). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Farber's recovery and reuse process during Sidles' molding process in order to reduce operating costs using recycling.

Regarding Claim 8, Sidles shows the process as claimed as discussed in the rejection of Claims 1, 5, and 6 above, but he does not show using a recovery device. Farber shows that it is known to recover the solvent by a recovery device (Column 2, lines 51-53; It is noted that the location of the recovery device does not materially affect the method steps of the method claim.). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Farber's recovery and reuse process during Sidles' molding process in order to reduce operating costs using recycling.

Regarding Claim 9, Sidles shows the process as claimed as discussed in the rejection of Claims 1, 5, 6, and 8 above, but he does not show using a collecting device. Farber shows that it is known to collect the [solvent] by a collection device that is arranged in a recovery passage

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connecting the recovery device to the mold (Column 2, lines 1-10, 51-61). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Farber's recovery and reuse process during Sidles' molding process in order to reduce operating costs using recycling.

Regarding Claim 19, Sidles shows the process as claimed as discussed in the rejection of Claims 16, 17, and 18 above, but he does not show recovering the solvent. Farber showed that it is known to recover the solvent vaporized in a process (Column 1, lines 33-35) and reuse the recovered solvent as the solvent in a subsequent process (Column 3, lines 16-17). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Farber's recovery and reuse process during Sidles' molding process in order to reduce operating costs using recycling.

Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sidles, in view of Iuchi (U.S. Patent 4,800,775).

Regarding Claim 11, Sidles shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show a specific molded product. Iuchi shows that it is known to carry out a molding process wherein the molded product is an insert molded product including an insert member occupying at least part of the molded product (Column 2, lines 20-35). Iuchi and Sidles are combinable because they are concerned with a similar technical field, namely, multistep molding processes. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to make Iuchi's product using the general process of Sidles in order to efficiently form the desired article using molding technology.

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Regarding Claim 12, Sidles shows the process as claimed as discussed in the rejection of Claims 1 and 11 above, but he does not show a specific molded product. Iuchi shows that it is known to carry out a method of arranging the insert member in the cavity (Column 2, lines 36-39; It is noted that the selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results. (*In re Burhaus*, 154 F. 2d 690, 69 USPQ 330 (CCPA 1940).). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Iuchi's insert in Sidles' molding process to efficiently form the desired article using insert molding technology.

Regarding Claim 13, Sidles shows the process as claimed as discussed in the rejection of Claims 1 and 11 above, but he does not show a specific molded product. Iuchi shows that it is known to carry out a method wherein the insert molded product is a vehicle steering wheel, and the insert member is a metal core (Column 2, lines 20-35). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Sidles' molding method to form Iuchi's steering wheel in order to efficiently form the desired article using insert molding technology.

Regarding Claim 14, Sidles shows the process as claimed as discussed in the rejection of Claims 1, 11, and 13 above, but he does not show a specific molded product. Iuchi shows that it is known to carry out a method wherein the metal core has a concavity in at least part of a portion corresponding to a grip of the vehicle steering wheel (Figure 4, element 7a). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Sidles' molding method to form Iuchi's steering wheel in order to efficiently form the desired article using insert molding technology.

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Allowable Subject Matter

Claims 3, 10, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A. Fontaine whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Maf
June 13, 2005



**MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER**